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Chang Heui Hong

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EXAMINER

WANG, JIN CHENG

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/603,451	Applicant(s) HONG, CHANG HEUI	
	Examiner JIN-CHENG WANG	Art Unit 2628	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 September 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 51-70 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 51-70 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

Response to Amendment

Applicant's submission filed on 9/24/2008 has been entered. Claims 1-50 have been canceled. Claim 51 has been amended. Claims 51-70 are pending in the application.

Response to Arguments

Applicant's arguments filed September 24, 2008 have been fully considered but are not found persuasive in view of the ground(s) of rejection set forth in the present Office Action.

First, it is noted that Applicant's definition of aspect ratio set forth in the arguments in Remarks of Page 9 is fatally flawed in that Applicant first defines the aspect ratio to be width:height=2:4 and this redefines the aspect ratio to be height:width=1:2. Applicant cannot change the definition of the aspect ratio. If the aspect ratio is defined to be a width divided by a height for the original image, the same definition should be applied to the adjusted image. However, Applicant erroneously redefines the aspect ratio to be a height divided by a width which is an inverse to the aspect ratio defined earlier as a width divided by a height. Applicant's arguments are self contradictory.

Second, the claim 51 recites the new claim limitation "wherein the first and second icons are displayed without requiring the mobile communication terminal to be in an orientation mode". However, Applicant's disclosure at Paragraph 0022 discloses directional keys or keypad buttons are pressed to rotate the images. This passage discloses rotating the image(s) as well as icon(s) requires pressing the directional keys or keypad buttons so as to place the mobile communication terminal in the rotation mode. That is to say, the Specification discloses that the first and second

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icons are displayed after the mobile communication terminal to be placed in the rotation mode. This is in direct contradictory with Applicant's new claim limitation that "the first and second icons are displayed without requiring the mobile communication terminal to be in an orientation mode."

To comply with the "written description" requirement of 35 U.S.C. § 112, first paragraph, an applicant must convey with reasonable clarity to those skilled in the art that, as of the filing date sought, he or she was in possession of the invention. The invention is, for purposes of the "written description" inquiry, whatever is now claimed. *Vas-Cath, Inc. v. Mahurkar*, 935 F.2d 1555, 1563-64, 19 USPQ2d 1111, 1117 (Fed. Cir. 1991). For purposes of written description, one shows "possession" by descriptive means such as words, structures, figures, diagrams, and formulas that fully set forth the claimed invention. *Lockwood v. American Airlines, Inc.*, 107 F.3d 1565, 1572, 41 USPQ2d 1961, 1966 (Fed. Cir. 1997). There is no such descriptive means in the disclosure for the inventions of claim 51.

Additionally, Applicant argues that the application and drawings support the claim language "an empty space". However, this argument is irrelevant because the 112 rejection is set forth with respect to the overall claim limitations structurally set forth in the base claim 51. For example, the claim 51 also requires the icons to be displayed in the second display areas "wherein the first and second display areas are non-overlapping" is not enabled in applicant's specification. This claim limitation is more specific than the description set forth in applicant's specification.

In Remarks, applicant argues that FIG. 3B only shows one embodiment of the invention. However, Applicant is requested to particularly point out which passage/figure/paragraph/embodiment in the applicant's specification would support the claim

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invention. Applicant failed to even point out which specific embodiment or which specific figure/paragraph/passage/sentence supports the claim invention. Applicant further argues that in other embodiments the first and second display areas may be non-overlapping. Applicant's arguments are fatally flawed without specifically referring to a particular figure/paragraph/passage/sentence or particular embodiment in the applicant's specification that can be employed to support applicant's arguments or applicant's newly created claim invention. Even if the figure does not show the claim invention, it is required application's specification at least specifically disclose the claim invention in the same manner as set forth in the claim invention in the claim 51.

Applicant further stated that in the new claim 51 Applicant has chosen to particularly point out and distinctly claim the non-overlapping embodiments of the claimed subject matter. This argument does not make sense. Applicant's new claim language in the new claim 51 cannot be support applicant's claim invention of the claim 51. Moreover, the claim 51 is not originally filed and is not a part of the original specification.

With regards to the claim limitation of "non-overlapping", Register discloses icons are separately displayed from the image areas and non-overlapping with the rotated or un-rotated image(s) displayed in the first display area (See Register Figs. 4-5). Register teaches the third image comprises a scaled version of the second image wherein at least a width or a height has been adjusted for the rotated image, and wherein the third image is a scaled and rotated version of the first image in its entirety (Register Figs. 4-5).

Applicant argued that there is an empty space in the lower end of the display unit 103. However, Fig. 3B shows an image sized C*D occupying the whole display screen area and no

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empty space can be found in Fig. 3B. The new claim 51 requires specifically the first and second display areas are non-overlapping and also displaying at least first and second icons in a second display area of the display screen. Having an empty space in the lower end of the display unit 103 is remote from the claim limitation under consideration which requires the icons be contained in the second display area. Applicant's specification failed to specifically disclose the empty space in the display unit 103 has anything to do with the second display area of the display screen or the icons in the second display area. Moreover, Applicant's argument is contradictory because at least first and second icons have to be in a second display area of the display screen. If the second display area of the display screen is the empty space in the manner disclosed in applicant's specification, there would be no icon lying in the second display area of the display screen because, by the definition of the empty space, there should not be any image/icon lying in the empty space. Applicant's argument is thus contradictory to the claim limitation of displaying at least first and second icons in a second display area of the display screen.

Applicant argues that the specification inherently discloses the claim limitation set forth in the claim 51 through "express, implicit, or inherent disclosure." This argument is not supported. There is no inherent disclosure in the specification to support applicant's claim invention. Applicant failed to point out there is any inherent disclosure to support the claim invention set forth in the claim 51. Applicant further argues that the burden is on the Examiner to provide specific detail to overcome that presumption. In contrary to Applicant's above argument, both the Applicant's claim invention and Applicant's specification are deficient and the burden is on the Applicant to provide support to such presumption that there is an inherent disclosure to support

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the claim invention. Applicant is required to support the newly construed claim limitations set forth in the claim 51 from the originally filed specification.

Applicant further argues that by definition, the empty space is non-overlapping with the first display area. Applicant's argument is fatally flawed. First of all, Applicant's specification failed to specifically disclose the empty space in the display unit 103 has anything to do with the second display area of the display screen or icons being displayed in the second display area. Moreover, Applicant's argument is contradictory with the claim invention because there are at least first and second icons in a second display area of the display screen as required by the claim 51. If the second display area of the display screen is the same as the empty space disclosed in the Specification, there would be no icon lying in the second display area of the display screen. Finally, Applicant's specification failed to disclose there is any relationship between the empty space and the icons in the second display area. Applicant's argument is thus in contradiction to the claim limitation of displaying at least first and second icons in a second display area of the display screen. Applicant's specification is deficient to support the newly construed claim invention set forth in the claim 51 as the claim 51 is not originally filed by Applicant.

Applicant argues in essence with respect to the claim 51 and similar claims in light of the 103 rejection based on the cited prior art. Applicant argues that Uyehara does not disclose that the text characters are re-arranged after rotation. Applicant's argument is irrelevant in light of the claim limitation that "a third image is displayed in entirety in the first display area of the display screen". Applicant's argument is fatally flawed because the claimed third image must necessarily be different from the claimed second image or the claimed first image as required by the claim 51. Otherwise, the claim 51 does not have to recite "a third image". Moreover, the prior art Uyehara

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discloses the third image being displayed in its entirety in the first display area of the display screen. Uyehara's third image being different from the un-rotated image exactly teaches the claimed third image as required by the claim 51. The claimed third image, by its definition, should be different from the claimed second image or the claimed first image. Applicant's argument of having less text characters in the third image is irrelevant because 1) Uyehara discloses the third image having more text characters than the first image and 2) Applicant cannot equate text(s) with the claimed image wherein the texts are image contents which are different in concept from the images. Uyehara discloses in Fig. 18 that the entire texts of the first image in Fig. 17 are rotated and presented in its totality as a third image in Fig. 18. A reflow of the texts in the third image of Fig. 18 has been shown in Fig. 18. Applicant argues that displaying some of the text(s) in the display area is inconsistent with displaying the text in entirety in the display area. Applicant cannot equate text(s) with the claimed image(s). The third image in Fig. 18 is displayed in entirety regardless of whether or not less text characters are displayed in the rotated image. The third image of Fig. 18 displays all the texts of the Fig. 17 or all the image contents of the first image as required by the claim 51.

Applicant further argues that Uyehara teaches away from "wherein the first and second icons are displayed without requiring the mobile communication terminal to be in an orientation mode". However, Applicant's disclosure at Paragraph 0022 discloses directional keys or keypad buttons are pressed to rotate the images. This passage discloses rotating the image(s) as well as icon(s) requires pressing the directional keys or keypad buttons so as to place the mobile communication terminal in the rotation mode. That is to say, the Specification discloses that the first and second icons are displayed after the mobile communication terminal to be placed in the

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rotation mode. This is in direct contradictory with Applicant's new claim limitation that "the first and second icons are displayed without requiring the mobile communication terminal to be in an orientation mode."

Moreover, the rotated image may or may not provide some empty space on either the top or bottom and it is inherent in the meaning of a non-overlapping second display area. However, the concerned issue is not whether the specification discloses "an empty space". It is whether the claim limitations set forth in the claim 51 as a whole is enabled by the specification. As indicated in Fig. 3, the icons are located in the lower-end of the display screen, creating some empty space on the top, on the right, or on the left of the display screen would not necessarily provide the claimed feature that the icons, located in the second display area, are non-overlapping with the first display area. Even assuming for argument sake that applicant has support for the claimed empty space, applicant still failed to support the claim limitations structurally set forth in the claim 51. First of all, from applicant's argument, applicant is not sure where the empty space is located. The specification does not specifically disclose, by any means, where the empty space is located. Even from applicant's arguments, applicant cannot determine and is uncertain based on the specification the location of the empty space if an empty space ever exists. The claimed empty space may be located anywhere on the display screen. The empty space may also be located on the left-hand-side or the right-hand-side of the display screen. The empty space may also be created in a display screen space below the icons and the icons still overlap with the claimed first display area. Secondly, applicant has not made a case the claimed second display area having located therein the claimed icons has anything to do with the empty space. Third, applicant failed to provide the necessary description in the specification such that the claimed feature is duly

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supported in the manner described in applicant's specification, not supported by applicant's arguments. Applicant's specification failed to point out that the claimed empty space has any relationship with the second display area for displaying the icons. Merely having empty space located anywhere does not mean the specific claim limitations are supported by the specification wherein the claim limitations define a specific scope of invention.

The specification does not describe whether the empty space is on the top or bottom, or left or right. The specification does not describe whether the empty space has any bearing with the icons located within the claimed second display area. An image is scaled and may create an empty space. However, having an empty space in the display screen of the mobile device is remote from establishing that the claim limitation that the claimed second display area which displays at least the first and second icons. Thus claim limitation the first and second display areas are non-overlapping is more specific than what the specification has described.

With regards to the claim limitation of non-overlapping, Register discloses icons are separately displayed from the image areas and non-overlapping with the rotated or un-rotated image(s) displayed in the first display area (See Register Figs. 4-5). Register teaches the third image comprises a scaled version of the second image wherein at least a width or a height has been adjusted for the rotated image, and wherein the third image is a scaled and rotated version of the first image in its entirety (Register Figs. 4-5).

Applicant pointed to the Fig. 2 and Fig. 3B of the specification. Fig. 2 shows an image having a size of $A*B$ and Fig. 3B shows an image of a size of $C*D$. The display image having a size $C*D$ as displayed in Fig. 3B occupies the whole display screen. There is no empty space

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being created. Moreover, the icons completely overlap with the image of a size $C \times D$ as shown in Fig. 3B.

Applicant has been using the size C and D for the transformed image through applicant's specification. Applicant's specification is deficient in support applicant's newly amended claim

51. For one reason, the icon lies nowhere but overlapping with the image having a size $C \times D$.

Namely, the icons are overlapped with the image having a size fitting into a small display of the mobile display device. However, applicant's claim 51 requires that the icons are not overlapping with the image which applicant argues may be an inherent feature. The examiner respectfully disagrees with applicant's argument. Applicant's specification is deficient in supporting applicant's newly added claim 51.

The icon in Fig. 3B lies within the second image area and thus overlaps with the first image area. The icon cannot be placed anywhere except overlapping/intersecting with the claimed first image area. Applicant's claim 51 requires that the first and second display areas are non-overlapping. It is noted that claim 51 recites that "displaying at least first and second icons in a second display area" and "displaying a second image in a first display area of the display screen". Neither Applicant's Exhibit 1 nor Specification provides a support to the claim language set forth in the claim 51. However, nowhere in the specification discloses that "the first and second display areas are non-overlapping" as required by the claim 51 and similar claims.

It is acknowledged that applicant's submission of Exhibit 1 has been also considered. However, the sizes of the images set forth in the Exhibit 1 are different from the images in Figs. 2-3D as originally disclosed in applicant's specification. In an apparent effort to remedy the deficiencies in the specification with regards to the enablement requirements, applicant

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accordingly submitted Exhibit 1. However, the Exhibit 1 shows a first image of a different size from the first image in Fig. 2, which is inconsistent with the specification's statement that the first image has a height B and width A. Although applicant's creativity is appreciated, the Exhibit 1 redefines the first image to have a height C' and width D'. Applicant's original specification does not use notations for the sizes of the second image and the first image other than A, B, C and D. However, applicant's Exhibit 1 introduces some new notations C' and D' other than A, B, C and D and the original specification discloses the length of the display unit 103 is adjusted by adjusting the aspect ratio of the display unit 103 (See Paragraph 0025) and the image has to fit into the small display of the mobile display device.

Moreover, since Exhibit 1 introduces new notations and describes something in contrary to what have been disclosed in the original specification, the original specification is relied upon in consideration of the claim 51's claim languages. For the same reason discussed above, the Exhibit 1 cannot be used in lieu of applicant's specification to support the relationship $D=A \cdot A/B$. Moreover, the Exhibit 1 is not a part of the original specification and was provided during the prosecution of the present application. Exhibit 1 cannot be used to support the claim limitations set forth in the claim 51 for the reasons that the images in Exhibit 1 do not show the claimed icons set forth in the claim 51. Exhibit 1 does not support the claim language that "the second image is displayed in entirety in the first display area of the display screen" and thus has nothing to do with the claim limitations set forth in the claim 51. If the Exhibit 1 were to be accepted as a supplement to the specification otherwise, it would lead to a contradiction with the original specification's disclosure. Moreover, the images in Exhibit 1 are not even related to the display areas in a mobile communication device. Exhibit 1 does not provide further clarification to the

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claimed feature of non-overlapping between the first image area and the second image area.

Therefore, Exhibit 1 is deficient and does not provide any clarification to the claim languages set forth in the claim 51.

In Remarks, Applicant argues in essence with respect to the claim 52 that adjusting a width or a height of the second image would not result in the change in the aspect ratio of the adjusted image. These arguments are fatally flawed because Applicant gives an example of changing both the width and the height of the second image. However, the claim 51 requires adjusting a width OR a height of the second image which results in the change in the aspect ratio. Adjusting a width changes the aspect ratio of the adjusted image from that of the original image. Adjusting a height changes the aspect ratio of the adjusted image from that of the original image. Moreover, Applicant's definition of aspect ratio set forth in the arguments in Remarks of Page 9 is fatally flawed in that Applicant first defines the aspect ratio to be width:height=2:4 and this redefines the aspect ratio to be height:width=1:2. Applicant cannot change the definition of the aspect ratio. If the aspect ratio is defined to be a width divided by a height for the original image, the same definition should be applied to the adjusted image. However, Applicant erroneously redefines the aspect ratio to be a height divided by a width which is an inverse to the aspect ratio defined earlier as a width divided by a height. Applicant's arguments are self contradictory.

Applicant argues that Uyehara is not directed to viewing "a photographic image" as claimed. However, Uyehara discloses graphics images in column 4, lines 60-67 and graphics image includes a photographic image.

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Applicant argues in Item 2 in Page 7 with respect to the claim limitation that “the first and second display areas are non-overlapping”. However, this limitation is not even supported by applicant’s specification.

Applicant argues with respect to the claim limitation in the claim 57 that “the second image has approximately same aspect ratio as the first image”. Applicant’s Fig. 2 and Fig. 3B discloses the first image having a width A and height B and the second image having a width C and height D in a mobile communication display having the same size of the display screen (as a matter of fact, according to applicant’s embodiment in Fig. 2 and Fig. 3B, C=A and D=B as evidenced in applicant’s originally filed claim 13 in which the length A is adjusted in size to be the length C and the originally filed claim 1 also recites changing the size of the first image to the size of the second image). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Applicant argued in Paragraph 1 of Page 10 in Remarks that “the aspect ratio of the display unit 103 is changed from A:B to C:D in order to prevent the image from being distorted.” This statement failed to support applicant’s claim limitation that “the second image has approximately same aspect ratio as the first image.” According to applicant’s newly filed arguments, applicant employed an alternative embodiment that $C=A$ and $D = A \cdot A/B$ to support the newly filed amendment. However, the aspect ratio of the new image having the size C*D is now changed to $C:D = A / (A \cdot A/B) = B/A$ which is the inverse of the aspect ratio of the original image having the size A*B. Applicant failed to support the claimed feature that the second image has approximately same aspect ratio as the first image.

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Nothing can be found in the figures as to the second image has been sized differently. This feature is exactly the same as Uyehara's portrait and landscape modes for displaying the images (texts are also images when displayed) in which the length of the second image is adjusted in size from the length of the first image. Uyehara discloses in column 4, lines 60-65 the graphics image which includes a photographic image. Thus, in Uyehara, the rotation of images is not necessarily limited to the text images in the figures. The graphics images can be rotated as similar to the text images. Therefore, Uyehara meets the claim limitation that the second image has approximately same aspect ratio as the first image, as set forth in the claim 57.

USPTO personnel are to give claims their broadest reasonable interpretation in light of the supporting disclosure. In re Morris, 127 F.3d 1048, 1054-55, 44 USPQ2d 1023, 1027-28 (Fed. Cir. 1997). Limitations appearing in the specification but not recited in the claim should not be read into the claim. E-Pass Techs., Inc. v. 3Com Corp., 343 F.3d 1364, 1369, 67 USPQ2d 1947, 1950 (Fed. Cir. 2003) (claims must be interpreted "in view of the specification" without importing limitations from the specification into the claims unnecessarily). In re Prater, 415 F.2d 1393, 1404-05, 162 USPQ 541, 550-551 (CCPA 1969). See also In re Zletz, 893 F.2d 319, 321-22, 13 USPQ2d 1320, 1322 (Fed. Cir. 1989) ("During patent examination the pending claims must be interpreted as broadly as their terms reasonably allow.... The reason is simply that during patent prosecution when claims can be amended, ambiguities should be recognized, scope and breadth of language explored, and clarification imposed.... An essential purpose of patent examination is to fashion claims that are precise, clear, correct, and unambiguous. Only in this way can uncertainties of claim scope be removed, as much as possible, during the administrative process.").

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Applicant argues that Uyehara is only concerned with changing the orientation of the displayed texts and it does not suggest adjusting the image size so that it fits in the display. However, adjusting the image size so that it fits in the display means that the second image necessarily has the size $C=A$ and $D=B$. Applicant's original specification lacks a showing that the second image and the first image are sized according to the notations other than A, B, C and D. Applicant argues that the produced result is not a rotated version of the same "photographic image" adjusted in size to fit in the display. This argument does not make sense. The first image and the second image are recited in the claims and the second image does not have to be exactly the same as the first image, as required by the claims. Uyehara's Fig. 18 clearly shows a second image is a rotated version of the first image in Fig. 17 and the second image in Fig. 18 is adjusted in length from the first image in Fig. 17 because the claims do not require that the second image have to be the same as the first image or there has to be a one-to-one mapping relationship between the pixels of the first image and the pixels of the second image.

Applicant argues with respect to Uyehara and Register in Item 6 of Page 8 the claim limitation that "the first and second display areas are non-overlapping." However, according to the applicant's specification, Fig. 2 shows an image having a size of $A*B$. Fig. 3B shows an image having a size of $C*D$ wherein the icon lies in the display area overlapping with the image having a size $C*D$. The icon lies nowhere but overlapping with the image having a size $C*D$. Applicant stated in Page 6 that the second image in Fig. 3B has a height D and width C. Applicant further stated that the first image has the height B and width A. However, the icon in Fig. 3B lies within the second image area and thus overlaps with the second image area. Applicant's claim 51 requires that the first and second display areas are non-overlapping. It is noted that claim 51

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recites that “displaying at least first and second icons in a second display area” and “displaying a second image in a first display area of the display screen”. However, nowhere in the specification discloses that “the first and second display areas are non-overlapping” as required by the claim 51 and similar claims.

In response to applicant’s argument that the cited Register is nonanalogous art, it has been held that a prior art reference must either be in the field of applicant’s endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, Register discloses a set of soft icons on the display screen of a handheld device. Whether Register has to toggle buttons outside the display screen does not matter. The embodiment of a set of soft icons meets the claim limitation of “icons” set forth in the claims. Register discloses icons are separately displayed from the image areas and non-overlapping with the rotated or un-rotated image(s) displayed in the first display area (See Register Figs. 4-5). Register teaches the third image comprises a scaled version of the second image wherein at least a width or a height has been adjusted for the rotated image, and wherein the third image is a scaled and rotated version of the first image in its entirety (Register Figs. 4-5).

Moreover, applicant’s claim 51 does not recite any functionality associated with the claimed icons. Applicant’s claim 51 only requires the display area for icons to be non-overlapping with the display area for the image. However, applicant argues with respect to the functionalities of the icons, i.e., the selection of icons by arguing that Register requires to toggle a single button toward a first direction that allows a user to choose a first soft icon. However, applicant’s claim 51

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is not even related to the selection of icons whatsoever, rendering the argument invalid.

Applicant's argument is irrelevant to the claim limitations set forth in the claim 51 and similar claims.

Applicant argues with respect to the combination of Uyehara and Register for the obviousness rejection set forth in the previous Office Action by arguing that Uyehara's filing post dates that of Register's by about three years. This argument is irrelevant in view of the obviousness type rejection based on the prior art references. Long before the time the claimed invention was made, Uyehara and Register has taught the claim limitations set forth in the claim 51 and similar claims. Moreover, Register is published long time before Uyehara and thus Uyehara is aware of the Register's teaching at the time Uyehara made his invention. Uyehara does not have to repeat Register's experimentation. Finally, the filing dates of both references are prior to the applicant's filing date. The prior art references can be combined accordingly with the motivations to combine the references.

Applicant argues that Applicant invites the Examiner to point out the alleged motivation to combine the references. However, the Office Action clearly cited the motivation to combine the references. According to MPEP, to establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on applicant's

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disclosure. In re Vaeck, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). See MPEP § 2143 - § 2143.03 for decisions pertinent to each of these criteria.

In the present case, it would have been obvious to one of the ordinary skill in the art at the time the invention was made to have placed the software controlled markers of Uyehara outside the images to be rotated according to the teaching of Register that the soft keys are placed outside of the images to be rotated. Both references teach the rotation of the images in accordance with the icons or soft keys. Placing the soft keys or icons outside the images to be rotated is old and well known in the art as evidenced in the Register's reference. Uyehara teaches or suggests the claim limitation by teaching in Figs. 17-18 that the orientation icons/keys 80 are outside of the display images to be rotated.

Moreover, whatever arrangement/placement of the keys on the mobile device do not matter as long as they are used to perform the same functions, i.e., rotating the image in clockwise direction, counter-clockwise direction etc. One of the ordinary skill in art realizes that locations for placing the keys/icons on the mobile device can be changed. As to the use of the keys/icons instead of the orientation key in combination with the markers, one of the ordinary skill in the art realizes that markers are software controlled markers which can be tapped to issue commands to control the image orientation performing the same function of the keys. One of the ordinary skill in the art would have been motivated to do this to select a text orientation which corresponds to the user's preferred device orientation and gripping method allowing a user to select the icons outside of the images in order not to obscure the images with the icons and these motivation statements can be found in Register and Uyehara (See Uyehara Figs. 17-18 and column 6, lines 21-36 and Register Figs. 4-5) because Uyehara teaches or suggests the claim

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limitation of the icons to be non-overlapping with the displayed images by teaching in Figs. 17-18 that the orientation icons/keys 80 are outside of the display images to be rotated.

As address below, the Claim 1 is unpatentable over Uyehara et al. U.S. Patent No. 6,154,214 (hereinafter Uyehara) in view of Register U.S. Patent No. 5,661,632 (hereinafter Register) and Igarashi et al. U.S. Patent No. 6,747,680 (hereinafter Igarashi).

As addressed below, Uyehara discloses a method of controlling image display on a hand-held mobile communication terminal, the method comprising:

Displaying a first image on a display screen of a hand-held mobile communication terminal configured to communicate voice data in a wireless communication network (*column 4, lines 60-65 and column 5, lines 1-10 wherein the device plays sound clips and includes a speech synthesizer to communicate audible output or digital audio signals; column 4, lines 35-50 wherein the device directly downloads graphics images from the Internet*), wherein the first image comprises a photographic image (*column 4, lines 60-65 wherein the graphics image includes a photographic image*);

Displaying a second image in a first display area of the display screen (Figs. 17-18), in response to a user interacting with the mobile communication terminal to affirmatively control at least a first and a second direction of rotation for an image displayed on the display screen (column 12, lines 1-33), wherein the second image comprises a rotated version of the first image relative to the display screen (Figs. 17-18),

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Wherein a width or a height of the second image are adjusted in size so that a third image is displayed in entirety in the first display area of the display screen (Due to 112 rejection, the limitation is given the broadest reasonable interpretation, see Figs. 17-18; *However, Uyehara discloses in Fig. 18 that the entire texts of the first image in Fig. 17 are rotated and presented as a third image in Fig. 18. Fig. 18 displays an image including the first image in Fig. 17 in its entirety and the width or height of the image has been adjusted and thus the image of Fig. 18 is both a scaled and rotated version of the first image in Fig. 17 in its entirety, i.e., all texts in Fig. 17 are displayed in Fig. 18*), and

Displaying at least first and second icons in a second display area of the display screen (Fig. 17 discloses four fixed icons; see column 6, lines 9-20), wherein the first and second display areas are non-overlapping (rotation icon 80 is non-overlapping with the image having the text area; see Figs. 17-18; additionally the soft keys/icons are overlapped with the image having the text area) and the second display area is positioned between the first display area and at least one edge of the display screen (Figs. 17-18), and wherein the first and second icons are associated with a function for controlling image display on the hand-held mobile communication terminal (column 12).

In other words, Uyehara further discloses rotating a first image displayed on the display unit (*e.g., rotating the first image displayed on the Fig. 17*), in a first direction (*e.g., in a portrait mode*) relative to the display unit, to display a second image (*in response to the user's pressing of the orientation key 80 to display a second image in landscape mode*) and adjusting dimension and orientation of the second image relative to dimensions of the display unit (*the dimensional configuration of the image displayed in Fig. 18 are different from the dimensional configuration*

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of the first image displayed in Fig. 17 in the portrait mode and the texts are redisplayed with the orientation shown in Fig. 18, see column 12. Adjusting the display orientation of the first image also adjusts the dimensional configuration of the second image in Fig. 18 in accordance with the width and height of the display unit).

Uyehara discloses an orientation key 80 and a plurality of software controlled markers 240-246 in response to the pressing of the orientation key 80 to control the rotation orientation of the image. The markers are software control keys (soft keys) in which the user can tap or touch (e.g., column 12, lines 20-21 and column 12, lines 50-57). The plurality of markers include a first and second orientation markers performing the same function as the first and second direction keys of performing clockwise or counter-clockwise rotation of the image (See column 6, lines 10-36). The plurality of markers also include a third and fourth orientation markers performing the same function as the third and fourth direction keys of performing 180 degree rotation or 0 degree rotation to return to its original orientation (column 6, lines 21-36). These four markers are software controlled to indicate direction or orientation in which the first image in Fig. 17 is rotated.

Although Uyehara does not explicitly discloses the graphical orientation markers 240-246 are not overlapping with the image having the text area, Uyehara explicitly teaches the rotation icon and hotkey icon 82 are displayed in a second display area. Uyehara discloses the claim invention in the same manner as disclosed in the Applicant's specification. From Applicant's disclosure, Fig. 2 shows an image having a size of $A*B$ and Fig. 3B shows an image having a size of $C*D$ wherein the icon lies in the display area overlapping with the image having a size $C*D$. The icon lies nowhere but overlapping with the image having a size $C*D$. Applicant stated in Page

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6 that the second image in Fig. 3B has a height D and width C. Applicant further stated that the first image has the height B and width A. However, the icon in Fig. 3B lies within the second image area and thus overlaps with the second image area. Applicant's claim 51 requires that the first and second display areas are non-overlapping. It is noted that claim 51 recites that "displaying at least first and second icons in a second display area" and "displaying a second image in a first display area of the display screen". However, nowhere in the specification discloses that "the first and second display areas are non-overlapping" as required by the claim 51 and similar claims.

In the interest of compact prosecution of the case, the examiner has provided the art rejection in light of the cited references and the 112 rejection set forth in the present Office Action.

Register discloses icons are separately displayed from the image areas (See Register Figs. 4-5). Register discloses icons are separately displayed from the image areas and non-overlapping with the rotated or un-rotated image(s) displayed in the first display area (See Register Figs. 4-5). Register teaches the third image comprises a scaled version of the second image wherein at least a width or a height has been adjusted for the rotated image, and wherein the third image is a scaled and rotated version of the first image in its entirety (Register Figs. 4-5).

It would have been obvious to one of the ordinary skill in the art at the time the invention was made to have placed the software controlled markers of Uyehara outside the images to be rotated according to the teaching of Register that the soft keys are placed outside of the images to be rotated. Both references teach the rotation of the images in accordance with the icons or soft keys. Placing the soft keys or icons outside the images to be rotated is old and well known in the

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art as evidenced in the Register's reference. Uyehara teaches or suggests the claim limitation by teaching in Figs. 17-18 that the orientation icons/keys 80 are outside of the display images to be rotated.

Moreover, whatever arrangement/placement of the keys on the mobile device do not matter as long as they are used to perform the same functions, i.e., rotating the image in clockwise direction, counter-clockwise direction etc. One of the ordinary skill in art realizes that locations for placing the keys/icons on the mobile device can be changed. As to the use of the keys/icons instead of the orientation key in combination with the markers, one of the ordinary skill in the art realizes that markers are software controlled markers which can be tapped to issue commands to control the image orientation performing the same function of the keys. One of the ordinary skill in the art would have been motivated to do this to select a text orientation which corresponds to the user's preferred device orientation and gripping method allowing a user to select the icons outside of the images in order not to obscure the images with the icons and these motivation statements can be found in Register and Uyehara (See Uyehara Figs. 17-18 and column 6, lines 21-36 and Register Figs. 4-5) because Uyehara teaches or suggests the claim limitation of the icons to be non-overlapping with the displayed images by teaching in Figs. 17-18 that the orientation icons/keys 80 are outside of the display images to be rotated.

It remains to be shown whether the prior arts teach scaling the image. Igarashi teaches scaling the image in a portable device (See Igarashi Figs. 3-4 and column 6-11). It would have been obvious to one of the ordinary skill in the art to have scaled the image in a PDA because the functionality of scaling or zooming in the PDA is old and well known in the art at the time the invention was made. Therefore, incorporating the teaching of Igarashi, it would have been

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obvious to one of the ordinary skill in the art at the time the invention was made to have zoomed in or zoomed out the displayed image in the portable device of Uyehara or Register in order to obtain the scaled and rotated version of the image. One of the ordinary skill in the art would have been motivated to do so to allow the size of texts displayed in the portable device to be changed (Igarashi Figs. 3-4 and column 7).

Specification

A substitute specification in proper idiomatic English and in compliance with 37 CFR 1.52(a) and (b) is required. The substitute specification filed must be accompanied by a statement that it contains no new matter.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 51-56 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The claim 51 recites the new claim limitation "wherein the first and second icons are displayed without requiring the mobile communication terminal to be in an orientation mode". However, Applicant's disclosure at Paragraph 0022 discloses directional keys or keypad buttons are pressed to rotate the

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images. This passage discloses rotating the image(s) as well as icon(s) requires pressing the directional keys or keypad buttons so as to place the mobile communication terminal in the rotation mode. That is to say, the Specification discloses that the first and second icons are displayed after the mobile communication terminal to be placed in the rotation mode. This is in direct contradictory with Applicant's new claim limitation that "the first and second icons are displayed without requiring the mobile communication terminal to be in an orientation mode."

To comply with the "written description" requirement of 35 U.S.C. § 112, first paragraph, an applicant must convey with reasonable clarity to those skilled in the art that, as of the filing date sought, he or she was in possession of the invention. The invention is, for purposes of the "written description" inquiry, whatever is now claimed. *Vas-Cath, Inc. v. Mahurkar*, 935 F.2d 1555, 1563-64, 19 USPQ2d 1111, 1117 (Fed. Cir. 1991). For purposes of written description, one shows "possession" by descriptive means such as words, structures, figures, diagrams, and formulas that fully set forth the claimed invention. *Lockwood v. American Airlines, Inc.*, 107 F.3d 1565, 1572, 41 USPQ2d 1961, 1966 (Fed. Cir. 1997). There is no such descriptive means in the disclosure for the inventions of claim 51. The claims 52-56 depend upon the claim 51 and are rejected due to their dependency on the claim 51.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

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Claims 51-70 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

For example, the base claim 51 recites, “a width or a height of the second image are adjusted in size so that a third image is displayed in entirety in the first display area of the display screen, wherein the third image comprises a scaled version of the second image, and wherein the third image is scaled and rotated version of the first image in its entirety....displaying at least first and second icons in a second display area of the display screen, wherein the first and second display areas are non-overlapping”.

Applicant speculated the claim limitation of "displaying at least first and second icons in a second display area of the display screen, wherein the first and second display areas are non-overlapping".

However, according to applicant's specification at FIG. 3B, an image of size C*D has been shown and the icon E is overlapping with the image of size C*D. Although applicant's specification at Paragraph 0024 stated “an empty space may be generated on lower end of the image on the display unit 103”, nothing has been disclosed in the specification as to how the empty space is related to the icons at issue. Moreover, this is remote from the claim limitation of displaying at least first and second icons in a second display area of the display screen wherein the first and second display areas are non-overlapping. Finally, applicant's specification does not support the limitation of “wherein the first and second display areas are non-overlapping” set forth in the claims 51-56, 58-59 and 61.

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Applicant's Fig. 2 shows an image having a size of $A*B$ and Fig. 3B shows an image having a size of $C*D$ wherein the icon lies in the display area overlapping with the image having a size $C*D$. The icon E lies nowhere but overlapping with the image having a size $C*D$. Applicant stated in Page 6 that the second image in Fig. 3B has a height D and width C. Applicant further stated that the first image has the height B and width A. However, the icon E in Fig. 3B overlaps with the second image. Applicant's claim 51 requires that the first and second display areas are non-overlapping. It is noted that claim 51 recites that "displaying at least first and second icons in a second display area" and "displaying a second image in a first display area of the display screen". However, nowhere in the specification discloses that "the first and second display areas are non-overlapping" as required by the claim 51.

The claims 52-56 depend upon the claim 51 and are rejected due to their dependency on the claim 51.

The claim 57 further recites "wherein at least one of a width and a height of the second image is adjusted in size so that the second image is displayed in the first display area, and wherein the second image has approximately same aspect ratio as the first image." However, at least one of a width and a height of the second image being adjusted in the manner as disclosed in the specification means that the aspect ratio has changed. The second image cannot have approximately same aspect ratio as the first image. Moreover, the Fig. 3B does not support the claim feature, a width and a height of the second image is not adjusted in size and thus the limitation is not supported by applicant's specification.

Applicant argued in Paragraph 1 of Page 10 in Remarks that "the aspect ratio of the display unit 103 is changed from $A:B$ to $C:D$ in order to prevent the image from being distorted."

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This statement failed to support applicant's claim limitation that "the second image has approximately same aspect ratio as the first image." According to applicant's newly filed arguments, applicant employed an alternative embodiment that $C=A$ and $D = A*A/B$ to support the new amendment. However, the aspect ratio of the new image having the size $C*D$ is now changed to $C:D = A/ (A*A/B) = B/A$ which is the inverse of the aspect ratio of the original image having the size $A*B$. Applicant failed to support the claimed feature that the second image has approximately same aspect ratio as the first image.

The claim 58 is also subject to the same rationale of rejection set forth in the claim 51.

The claims 58-63 depend upon the claim 57 and are rejected due to their dependency on the claim 57.

The claim 64 recites "wherein at least one of a first length and a second length of the second image is adjusted in size for the second image to be displayed in a first display area of the display screen so that the second image has approximately same aspect ratio as the first image" and "wherein at least one of a first length and a second length of the third image is adjusted in size for the third image to be displayed in the first display area of the display screen so that the third image has approximately same aspect ratio as the second image". The claim 64 is subject to the same rationale of rejection set forth in the claim 57.

The claims 65-70 depend upon the claim 64 and are rejected due to their dependency on the claim 64.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

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The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 51-70 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

For example, the base claim 51 recites, “a width or a height of the second image are adjusted in size so that a third image is displayed in entirety in the first display area of the display screen, wherein the third image comprises a scaled version of the second image, and wherein the third image is scaled and rotated version of the first image in its entirety....displaying at least first and second icons in a second display area of the display screen, wherein the first and second display areas are non-overlapping”.

Applicant failed to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Applicant failed to particularly point out the claim limitation of "displaying at least first and second icons in a second display area of the display screen, wherein the first and second display areas are non-overlapping" set forth in the base claim 51.

However, according to applicant's specification at FIG. 3B, an image of size C*D has been shown and the icon E is overlapping with the image of size C*D. Although applicant's specification at Paragraph 0024 stated “an empty space may be generated on lower end of the image on the display unit 103”, however, this is remote from the claim limitation of displaying at least first and second icons in a second display area of the display screen wherein the first and second display areas are non-overlapping. Finally, applicant's specification does not support the limitation of “wherein the first and second display areas are non-overlapping” set forth in the claims 51-56, 58-59 and 61.

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Applicant's Fig. 2 shows an image having a size of $A*B$ and Fig. 3B shows an image having a size of $C*D$ wherein the icon lies in the display area overlapping with the image having a size $C*D$. The icon E lies nowhere but overlapping with the image having a size $C*D$. Applicant stated in Page 6 that the second image in Fig. 3B has a height D and width C. Applicant further stated that the first image has the height B and width A. However, the icon E in Fig. 3B overlaps with the second image. Applicant's claim 51 requires that the first and second display areas are non-overlapping. It is noted that claim 51 recites that "displaying at least first and second icons in a second display area" and "displaying a second image in a first display area of the display screen". However, nowhere in the specification discloses that "the first and second display areas are non-overlapping" as required by the claim 51. Clarification is required.

Claim 52 recites "first image and the third image have approximately same aspect ratio". However, this is in contradictory with the claim limitations set forth in the claim 51 that a width or a height of the second image is adjusted in size. Having adjusted the width or height of the second image and the third image is a scaled version of the second image. The aspect ratios of the third image and the first image are necessarily different due to the adjustment in the size of the first image.

The claims 52-56 depend upon the claim 51 and are rejected due to their dependency on the claim 51.

The claim 57 further recites "wherein at least one of a width and a height of the second image is adjusted in size so that the second image is displayed in the first display area, and wherein the second image has approximately same aspect ratio as the first image." However, the second image has approximately same aspect ratio as the first image implies that a width and a

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height of the second image is not adjusted in size and thus the limitation is not supported by applicant's specification. Clarification is required.

The claim 58 is also subject to the same rationale of rejection set forth in the claim 51.

The claims 58-63 depend upon the claim 57 and are rejected due to their dependency on the claim 57.

The claim 64 recites "wherein at least one of a first length and a second length of the second image is adjusted in size for the second image to be displayed in a first display area of the display screen so that the second image has approximately same aspect ratio as the first image" and "wherein at least one of a first length and a second length of the third image is adjusted in size for the third image to be displayed in the first display area of the display screen so that the third image has approximately same aspect ratio as the second image". The claim 64 is subject to the same rationale of rejection set forth in the claim 57. Clarification is required.

The claims 65-70 depend upon the claim 64 and are rejected due to their dependency on the claim 64.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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Claims 51-70 are rejected under 35 U.S.C. 103(a) as being unpatentable over Uyehara et al. U.S. Patent No. 6,154,214 (hereinafter Uyehara) in view of Register U.S. Patent No. 5,661,632 (hereinafter Register) and Igarashi et al. U.S. Patent No. 6,747,680 (hereinafter Igarashi).

Re Claim 51:

Uyehara discloses a method of controlling image display on a hand-held mobile communication terminal, the method comprising:

Displaying a first image on a display screen of a hand-held mobile communication terminal configured to communicate voice data in a wireless communication network (*column 4, lines 60-65 and column 5, lines 1-10 wherein the device plays sound clips and includes a speech synthesizer to communicate audible output or digital audio signals; column 4, lines 35-50 wherein the device directly downloads graphics images from the Internet*), wherein the first image comprises a photographic image (column 4, lines 60-65 wherein the graphics image include a photographic image);

Displaying a second image in a first display area of the display screen (Figs. 17-18), in response to a user interacting with the mobile communication terminal to affirmatively control at least a first and a second direction of rotation for an image displayed on the display screen (column 12, lines 1-33), wherein the second image comprises a rotated version of the first image relative to the display screen (Figs. 17-18),

Wherein at least a width or a height of the second image are adjusted in size so that a third image is displayed in entirety in the first display area of the display screen, wherein the

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third image comprises a scaled version of the second image, and wherein the third image is a scaled and rotated version of the first image in its entirety (*Due to 112 rejection, the limitation is given the broadest reasonable interpretation, see Figs. 17-18. Fig. 18 displays an image including the first image in Fig. 17 in its entirety and the width or height of the image has been adjusted and thus the image of Fig. 18 is both a scaled and rotated version of the first image in Fig. 17 in its entirety, i.e., all texts in Fig. 17 are displayed in Fig. 18*), and

Displaying at least first and second icons in a second display area of the display screen (*Fig. 17 discloses four fixed icons; see column 6, lines 9-20*), wherein the first and second display areas are non-overlapping (*rotation icon 80 is non-overlapping with the image having the text area; see Figs. 17-18; additionally the soft keys/icons are overlapped with the image having the text area; column 12, lines 1-35 and column 6, lines 9-20*) and the second display area is positioned between the first display area and at least one edge of the display screen (*Figs. 17-18; column 12, lines 1-35 and column 6, lines 9-20*), and wherein the first and second icons are associated with a function for controlling image display on the hand-held mobile communication terminal and wherein the second display area is formed from the empty space created when the first image is rotated at approximately a ninety degree angle and resized to the third image (*column 12, lines 1-35 and column 6, lines 9-20*).

In other words, Uyehara further discloses rotating a first image displayed on the display unit (*e.g., rotating the first image displayed on the Fig. 17*), in a first direction (*e.g., in a portrait mode*) relative to the display unit, to display a second image (*in response to the user's pressing of the orientation key 80 to display a second image in landscape mode*) and adjusting dimension and orientation of the second image relative to dimensions of the display unit (*the dimensional*

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configuration of the image displayed in Fig. 18 are different from the dimensional configuration of the first image displayed in Fig. 17 in the portrait mode and the texts are redisplayed with the orientation shown in Fig. 18, see column 12. Adjusting the display orientation of the first image also adjusts the dimensional configuration of the second image in Fig. 18 in accordance with the width and height of the display unit. In Uyehara, the second image is obtained from the first image by rotating the first image and the text characters are re-arranged in a digital document. Due to image rotation, the original text characters displayed in the first image may not fit into the display area for the second image. Uyehara simply discloses that the text characters are re-arranged after the first document image has been rotated. Having less text characters displayed in a third image does not mean Uyehara teaches away from the claimed limitation that the third image is a rotated version of the first image in its entirety), wherein the first and second icons are displayed without requiring the mobile communication terminal to be in an orientation mode (the icons/markers are displayed regardless of the orientation mode of the mobile device or without requiring the mobile device to be in an orientation mode. The rotation icon 80 is non-overlapping with the image having the text area; see Figs. 17-18; additionally the soft keys/icons are overlapped with the image having the text area and the icons are displayed without requiring the mobile device to be in any particular orientation mode; column 12, lines 1-35 and column 6, lines 9-20).

Uyehara discloses an orientation key 80 and a plurality of software controlled markers 240-246 in response to the pressing of the orientation key 80 to control the rotation orientation of the image. The markers are software control keys (soft keys) in which the user can tap or touch (e.g., column 12, lines 20-21 and column 12, lines 50-57). However, the markers are displayed

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regardless of the orientation mode of the mobile communication device and thus are displayed without requiring the mobile device in any particular orientation mode.

The markers include the first and second orientation markers performing the same function as the first and second direction keys of performing clockwise or counter-clockwise rotation of the image (See column 6, lines 10-36). The plurality of markers also include the third and fourth orientation markers performing the same function as the third and fourth direction keys of performing 180 degree rotation or 0 degree rotation to return to its original orientation (column 6, lines 21-36). These four markers are software controlled to indicate direction or orientation in which the first image in Fig. 17 is rotated.

Although Uyehara does not explicitly disclose the graphical orientation markers 240-246 are not overlapping with the image having the text area, Uyehara explicitly teaches the rotation icon and hotkey icon 82 are displayed in a second display area. It also needs to be shown that the prior art teaches the third image comprises a scaled version of the second image, and wherein the third image is a scaled and rotated version of the first image in its entirety. However, Uyehara discloses in Fig. 18 that the entire texts of the first image in Fig. 17 are rotated and presented as a third image in Fig. 18.

Register discloses icons are separately displayed from the image areas and non-overlapping with the rotated or un-rotated image(s) displayed in the first display area (See Register Figs. 4-5). Register teaches the third image comprises a scaled version of the second image wherein at least a width or a height has been adjusted for the rotated image, and wherein the third image is a scaled and rotated version of the first image in its entirety (Register Figs. 4-5). Register discloses other claim limitations set forth in the claim 51 as well.

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It would have been obvious to one of the ordinary skill in the art at the time the invention was made to have placed the software controlled markers of Uyehara outside the images to be rotated according to the teaching of Register that the soft keys are placed outside of the images to be rotated. Both references teach the rotation of the images in accordance with the icons or soft keys. Placing the soft keys or icons outside the images to be rotated is old and well known in the art as evidenced in the Register's reference. Uyehara teaches or suggests the claim limitation by teaching in Figs. 17-18 that the orientation icons/keys 80 are outside of the display images to be rotated. Uyehara at least teaches some icons are outside the display images to be rotated (See Figs. 17-18).

Moreover, whatever arrangement/placement of the keys on the mobile device do not matter as long as they are used to perform the same functions, i.e., rotating the image in clockwise direction, counter-clockwise direction etc. One of the ordinary skill in art realizes that locations for placing the keys/icons on the mobile device can be changed. As to the use of the keys/icons instead of the orientation key in combination with the markers, one of the ordinary skill in the art realizes that markers are software controlled markers which can be tapped to issue commands to control the image orientation performing the same function of the keys. One of the ordinary skill in the art would have been motivated to do this to select a text orientation which corresponds to the user's preferred device orientation and gripping method allowing a user to select the icons outside of the images in order not to obscure the images with the icons and these motivation statements can be found in Register and Uyehara (See Uyehara Figs. 17-18 and column 6, lines 21-36 and Register Figs. 4-5) because Uyehara teaches or suggests the claim

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limitation of the icons to be non-overlapping with the displayed images by teaching in Figs. 17-18 that the orientation icons/keys 80 are outside of the display images to be rotated.

It remains to be shown whether the prior arts teach scaling the image. Igarashi teaches scaling the image in a portable device (See Igarashi Figs. 3-4 and column 6-11). It would have been obvious to one of the ordinary skill in the art to have scaled the image in a PDA because the functionality of scaling or zooming in the PDA is old and well known in the art at the time the invention was made. Therefore, incorporating the teaching of Igarashi, it would have been obvious to one of the ordinary skill in the art at the time the invention was made to have zoomed in or zoomed out the displayed image in the portable device of Uyehara or Register in order to obtained the scaled and rotated version of the image. One of the ordinary skill in the art would have been motivated to do so to allow the size of texts displayed in the portable device to be changed (Igarashi Figs. 3-4 and column 7).

Claim 52:

Uyehara is silent to the claim limitation “wherein the first image and the second image have the approximately same width-height aspect ratio.”

Uyehara discloses the first image in Fig. 17 having a height C and a width D and the displayed image of Fig. 18 also has height C and width D. In view of the above teaching of Uyehara, **the second image in Fig. 18 has the same width-height aspect ratio as the first image in Fig. 17.** Therefore, Uyehara at least implicitly teaches or suggests the claim limitation wherein the second image has the same width-height aspect ratio as the first image.

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One of the ordinary skill in the art would have been motivated to maintain the same width-height aspect ratio for the rotated second image as the first image such that the original image remains un-scaled while being rotated (See Register Figs. 1-5 and Uyehara Figs. 17-18).

Claim 54:

The claim 54 encompasses the same scope of invention as that of the claim 51 except additional claim limitation that the first and second icons are displayed in the second display area, in response to user interaction with the hand-held mobile communication terminal.

However, Register further discloses the claim limitation that the first and second icons are displayed in the second display area, in response to user interaction with the hand-held mobile communication terminal (*Register Figs. 4-5 wherein the first and second icons in Fig. 5 are displayed in the second display area in response to user interaction with the hand-held mobile communication terminal in Fig. 4*).

Claim 55:

The claim 55 encompasses the same scope of invention as that of the claim 51 except additional claim limitation that the user interaction with the hand-held mobile communication terminal comprises changing a display orientation of a displayed image in the first area relative to the hand-held mobile communication terminal. However, Register further discloses the claim limitation that the user interaction with the hand-held mobile communication terminal comprises changing a display orientation of a displayed image in the first area relative to the hand-held mobile communication terminal (*Register Figs. 4-5; column 3, lines 1-10 and column 4, lines 1-15*).

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Claim 56:

The claim 56 encompasses the same scope of invention as that of the claim 51 except additional claim limitation of a soft key. However, Register and Uyehara further discloses the claim limitation of a soft key (Register Figs. 4-5 and Uyehara Figs. 17-18; column 6, lines 9-20).

Re Claims 57 and 64:

Uyehara teaches a method of controlling image display on a hand-held mobile communication terminal, the method comprising:

Displaying a first image on a display screen of a hand-held mobile communication terminal in a first orientation relative to the display screen (See Figs. 17-18), wherein the first image comprises a photographic image (See column 4, lines 60-65);

Displaying a second image in a first display area of the display screen in response to a user interacting with at least one key (e.g., softkeys, hotkey, orientation key etc; column 12, lines 1-35 and column 6, lines 9-20) on a keypad (touch keypad) of the hand-held mobile communication terminal, wherein the second image comprises the first image displayed in a second orientation relative to the display screen, wherein the second orientation is different from the first orientation (Figs. 17-18; column 12, lines 1-35 and column 6, lines 9-20),

Wherein at least one of a width and a height of the second image is adjusted in size so that the second image is displayed in the first display area, and wherein the second image has approximately same aspect ratio as the first image, wherein the second image comprises a scaled and rotated version of the first image in its entirety (Figs. 17-18).

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Uyehara is silent to the claim limitation “wherein the first image and the second image have the approximately same width-height aspect ratio” and “a keypad”.

Register teaches a method of controlling image display on a hand-held mobile communication terminal, the method comprising:

Displaying a first image on a display screen of a hand-held mobile communication terminal in a first orientation relative to the display screen (See Figs. 4-5), wherein the first image comprises a photographic image (See Figs. 4-5);

Displaying a second image in a first display area of the display screen in response to a user interacting with at least one key on a keypad of the hand-held mobile communication terminal (column 3-4 and Figs. 4-5 having keys on a keypad), wherein the second image comprises the first image displayed in a second orientation relative to the display screen, wherein the second orientation is different from the first orientation (Figs. 4-5),

Wherein at least one of a width and a height of the second image is adjusted in size so that the second image is displayed in the first display area, and wherein the second image has approximately same aspect ratio as the first image (Figs. 4-5).

Uyehara discloses the first image in Fig. 17 having a width C and a height D and the displayed image of Fig. 18 also has width C and height D. In view of the above teaching of Uyehara, **the second image in Fig. 18 has the same width-height aspect ratio as the first image in Fig. 17.** Therefore, Uyehara at least implicitly teaches or suggests the claim limitation wherein the second image has the same width-height aspect ratio as the first image.

One of the ordinary skill in the art would have been motivated to maintain the same width-height aspect ratio for the rotated second image as the first image such that the original

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image remains un-scaled while being rotated (See Register Figs. 1-5 and Uyehara Figs. 17-18; column 12, lines 1-35 and column 6, lines 9-20).

It remains to be shown whether the prior arts teach scaling the image. Igarashi teaches scaling the image in a portable device (See Igarashi Figs. 3-4 and column 6-11). It would have been obvious to one of the ordinary skill in the art to have scaled the image in a PDA because the functionality of scaling or zooming in the PDA is old and well known in the art at the time the invention was made. Therefore, incorporating the teaching of Igarashi, it would have been obvious to one of the ordinary skill in the art at the time the invention was made to have zoomed in or zoomed out the displayed image in the portable device of Uyehara or Register in order to obtained the scaled and rotated version of the image. One of the ordinary skill in the art would have been motivated to do so to allow the size of texts displayed in the portable device to be changed (Igarashi Figs. 3-4 and column 7).

Claim 58:

Although Uyehara does not explicitly discloses the graphical orientation markers 240-246 are not overlapping with the image having the text area, Uyehara explicitly teaches the rotation icon and hotkey icon 82 are displayed in a second display area.

Register discloses icons are separately displayed from the image areas (See Register Figs. 4-5).

It would have been obvious to one of the ordinary skill in the art at the time the invention was made to have modified the software controlled markers of Uyehara with any forms of keys. Whatever arrangement/placement of the keys on the mobile device do not matter as long as they

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are used to perform the same functions, i.e., rotating the image in clockwise direction, counter-clockwise direction etc. One of the ordinary skill in art realizes that locations for placing the keys/icons on the mobile device can be changed. As to the use of the keys/icons instead of the orientation key in combination with the markers, one of the ordinary skill in the art realizes that markers are software controlled markers which can be tapped to issue commands to control the image orientation performing the same function of the keys. One of the ordinary skill in the art would have been motivated to do this to select a text orientation which corresponds to the user's preferred device orientation and gripping method (Uyehara column 6, lines 21-36 and Register Figs. 4-5).

Claim 59:

The claim 59 encompasses the same scope of invention as that of the claim 58 except additional claim limitation that the second display area is positioned between the first display area and at least one edge of the display screen. However, Uyehara further discloses the claim limitation that the second display area is positioned between the first display area and at least one edge of the display screen (Uyehara Figs. 17-18; Uyehara Figs. 17-18; column 12, lines 1-35 and column 6, lines 9-20).

Claim 61:

The claim 61 encompasses the same scope of invention as that of the claim 58 except additional claim limitation of a soft key. However, Register and Uyehara further discloses the claim limitation of a soft key (Register Figs. 4-5 and Uyehara Figs. 17-18 and column 6, lines 9-20).

Claim 62:

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The claim 62 encompasses the same scope of invention as that of the claim 57 except additional claim limitation that the second orientation corresponds to a clockwise rotated version of the first image relative to the first orientation. However, Register and Uyehara further disclose the claim limitation that the second orientation corresponds to a clockwise rotated version of the first image relative to the first orientation (Register column 3, lines 5-10; Uyehara column 12, lines 1-35 and Figs. 17-18).

Claim 63:

The claim 63 encompasses the same scope of invention as that of the claim 57 except additional claim limitation that the second orientation corresponds to a counter-clockwise rotated version of the first image relative to the first orientation. However, Register and Uyehara further disclose the claim limitation that the second orientation corresponds to a counter-clockwise rotated version of the first image relative to the first orientation (Register column 3, lines 5-10; Uyehara column 12, lines 1-35 and Figs. 17-18).

Claim 65:

The claim 65 encompasses the same scope of invention as that of the claim 64 except additional claim limitation that the second direction is opposite to the first direction. However, Register and Uyehara further disclose the claim limitation that the second direction is opposite to the first direction (Register column 3, lines 5-10; Uyehara column 12, lines 1-35 and Figs. 17-18).

Claim 66:

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The claim 66 encompasses the same scope of invention as that of the claim 64 except additional claim limitation that the first direction corresponds to a clockwise direction of rotation. However, Register and Uychara further disclose the claim limitation that the first direction corresponds to a clockwise direction of rotation (Register column 4, lines 1-13; Uychara column 12, lines 1-35 and Figs. 17-18).

Claim 67:

The claim 67 encompasses the same scope of invention as that of the claim 64 except additional claim limitation that the first direction corresponds to a counter-clockwise direction of rotation. However, Register and Uychara further disclose the claim limitation that the first direction corresponds to a counter-clockwise direction of rotation (Register column 3, lines 1-10; Uychara column 12, lines 1-35 and Figs. 17-18).

Claim 68:

The claim 68 encompasses the same scope of invention as that of the claim 66 except additional claim limitation that the first direction corresponds to a counter-clockwise direction of rotation. However, Register and Uychara further disclose the claim limitation that the first direction corresponds to a counter-clockwise direction of rotation (Register column 3, lines 1-10; Uychara column 12, lines 1-35 and Figs. 17-18).

Claim 69:

The claim 69 encompasses the same scope of invention as that of the claim 66 except additional claim limitation that the first direction corresponds to a clockwise direction of rotation. However, Register and Uychara further disclose the claim limitation that the first

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direction corresponds to a clockwise direction of rotation (Register column 4, lines 1-13; Uyehara column 12, lines 1-35 and Figs. 17-18).

Claim 70:

The claim 70 encompasses the same scope of invention as that of the claim 67 except additional claim limitation of displaying a soft key on the display screen, wherein the soft key is associated with a function for controlling image display on the hand-held mobile communication terminal. However, Register and Uyehara further discloses the claim limitation of displaying a soft key on the display screen, wherein the soft key is associated with a function for controlling image display on the hand-held mobile communication terminal (Register Figs. 4-5; Uyehara column 12, lines 1-35 and Figs. 17-18).

Re Claims 53 and 60:

Register discloses the second image in Fig. 5 has a width C and a height D and the first image in Fig. 4 has width A and a height B in which the width C of the second image corresponds to the width A of the display and the height D of the second image corresponds to the height B. It would have been obvious from the first image of Fig. 4 and the second image of Fig. 5 to see that C is approximately equal to A and D is approximately equal to B. Thus, D is approximately equal to $A * A/B$ as claimed.

Conclusion

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Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jin-Cheng Wang whose telephone number is (571) 272-7665. The examiner can normally be reached on 8:00 - 6:30 (Mon-Thu).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kee Tung can be reached on (571) 272-7794. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jin-Cheng Wang/

Primary Examiner, Art Unit 2628